



Missouri Department of Natural Resources
East Fork Tebo Creek - WBID 1282
Water Chemistry Data, 2000-2007

Org	Site	Site Name	Yr	Mo	Dy	Time	H	Flow	C	DO	pH	SC	NH3N	SO4	Cl	SO4+Cl
MoDNR	1282/4.2	E. Fk. Tebo Cr. 3.6 mi.bl. Windsor SW Lgn	2006	8	8	727		0	24.4	1.3	7.7	1123				
MoDNR	1282/6.0	E. Fk. Tebo Cr. 1.8 mi.bl. Windsor SW Lgn	2006	8	8	715			25.6	0.3	7.5	1213	0.51			
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2000	3	21				7		7.4	487		111	26	137
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2000	6	7				18		7.5	740		129	42	171
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2000	9	12		4		22		7.4	993		205	42	247
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2001	4	26		9	0.7	15	7.4	7.7	681		179	24	203
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2001	6	19				24	6.1	7.6	515		95	28	123
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2001	8	14	1755	9		24		7.6	748		161	40	201
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2001	8	16	1505	9		22	4.4	7.4	777		225	33	258
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2001	9	12				19	3.3	7.1	714		161	64	225
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2001	10	4	940			16	1.7	7.5	760		90	56	146
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2001	11	27				6		7.6	831		120	58.3	178
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2001	12	5				13	3.4	7.4	790		145	58	203
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2002	1	10	1325			3	7.2	7.6	1013		176	59	235
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2002	3	14				12	7	7.8	748		163	32	195
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2002	6	6				22	4.8	7.48	444		99.4	17.2	117
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2002	6	20				24	4.8	8	568		120	33	153
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2002	10	3	1355			22	2.4	7.9	740		68	79	147
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2003	4	24	1140			12	7	7.1	397		107	17	124
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2003	5	29	1420			19	4.2	7	2200		158	51	209
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2004	6	17	1310			24	4	7.8	580		103	26	129
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2004	11	10	1240			11	4.8	7.9	590		142	31	173
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2005	5	26	1600			19.8		7.6	914		217	48	265
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2005	12	7	930			0	9.1	6.6	1190		134	125	259
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2006	6	7	1200			22	2.4	7.2	785		135	99.6	235
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2006	8	8	700		0	23.8	1.7	8	2080	3.07			
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2006	12	14	1600			6	5.8	6.8	485		90	19.7	110
MoDNR	1282/7.1	E. Fk. Tebo Cr. 3 mi.bl. Triple AML	2007	6	13	1400			28	2.6	7.8	895		169	58	227
MoDNR	1282/8.0	E. Fk. Tebo just ab. Windsor SW Lgn	2006	8	8	630		0.02	24.3	3.8	7.4	1183	0.1			
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2000	3	21				9		7	526		167	12	179
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2000	6	7				18		7	920		351	14	365
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2000	9	12		4		22		6.8	1030		416	15	431

Org	Site	Site Name	Yr	Mo	Dy	Time	H	Flow	C	DO	pH	SC	NH3N	SO4	Cl	SO4+Cl
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2001	4	26		9	0.25	14	7	6.7	820		286	12	298
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2001	6	19				22	6.2	7.1	795		271	12	283
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2001	8	14	1735	9		26		7.4	1260		460	29	489
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2001	8	16	1440	9		24	6.7	7.2	1300		589	26	615
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2001	9	12				18	3.5	6.6	1000		399	22	421
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2001	10	4	915			15	2.9	7.1	1201		471	20	491
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2001	11	27				4		7.1	1410		521	14.7	536
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2001	12	5				12	8	7	1340		558	18	576
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2002	1	10	1405			0	7.8	6.9	1141		529	18	547
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2002	3	14	1420			13	9.8	7.7	687		268	16	284
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2002	6	6				24	7.4	7.4	473		135	10.3	145
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2002	6	20				28	7.5	7.2	762		202	10	212
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2002	10	3	1330			21	5.7	7.5	867		350	24	374
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2003	4	24	1120			14	8.9	6.8	234		50	9	59
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2003	6	10	1250			18	8.2	6.4	1660		112	47	159
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2004	6	17	1240			23	6.9	7	680		196	13	209
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2004	11	10	1355			13	7.6	6.8	585		225	14	239
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2005	5	26	1430			21.2		7.3	13100		597	18	615
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2005	12	7	910			1.7		3.9	2300		6940	44	6984
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2006	6	7	1300			22	5.4	7	997		296	24.1	320
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2006	12	14	1520			6	6	7	443		122	13	135
MoDNR	1282/10.4	E. Fk. Tebo Cr. 0.5 mi.bl. Triple AML	2007	6	13	1330			26	5.5	7	1430		590	16	606
MoDNR	1282/11.3	E. Fk. Tebo Cr. 0.3 mi.ab. Triple AML	2006	6	7	1330			31	17.6	8.2	637		147	25.1	172

The water quality standard for the protection of aquatic life for sulfate plus chloride is 1000mg/L. The Listing Methodology Document allows a water to be judged as impaired if 10 percent of measurements fail to meet the water quality standard. One of 26 samples upstream of the Windsor Southwest Wastewater Treatment Plant exceeded the standard, or 3.8 percent. The binomial probability is .748. Since this probability is more than the minimum allowable type one error rate of 0.1, this water is judged to be unimpaired by sulfate plus chloride.

The water quality standard for the protection of aquatic life for pH is pH levels from 6.5 to 9.0. For pH, the Listing Methodology Document allows a water to be judged as impaired if more than 10 percent of the measurements fail to meet the water quality standard. Two of 27 pH measurements exceeded the standard, or 7.4 percent. The binomial probability is .514. Since this probability is more than the minimum allowable type one error rate of 0.1, this water is judged to be **unimpaired** by pH.

The U.S. Environmental Protection Agency a total maximum daily load for pH for East Fork Tebo Creek in 2006.

The water quality standard for the protection of aquatic life for dissolved oxygen is 5mg/L. For dissolved oxygen, the Listing Methodology Document allows a water y to be judged as impaired if measurements on 10 percent of the days monitored fail to meet the water quality standard.

Two of 20 days exceeded the standard above the Windsor Southwest Wastewater Treatment Plant, or 10 percent. The binomial probability is .323. Since this probability is more than the minimum allowable type one error rate of 0.1, this segment is judged to be **unimpaired** by low dissolved oxygen.

Thirteen of 21 days exceeded the standard below the Windsor Southwest Wastewater Treatment Plant, or 61.9 percent. The binomial probability is 0. Since this probability is less than the minimum allowable type one error rate of 0.1, this segment is judged to be **impaired** by low dissolved oxygen.

The chronic water quality standard for the protection of aquatic life for ammonia is temperature and pH dependent. A water is judged to be impaired if the chronic or acute numeric criteria are exceeded on more than one occasion, with an exposure period of 30 days, during the last three years for which data is available. The chronic criterion for ammonia was exceeded one time below the Windsor Southwest Wastewater Treatment Plant during the last three years for which data is available. Therefore, this water body is judged to be **unimpaired** by ammonia.

Missouri Department of Natural Resources, Water Protection Program, (573) 751-1300, www.dnr.mo.gov

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